

Appl. No. : 10/628,879
Filed : July 28, 2003

AMENDMENTS TO THE CLAIMS

Please amend Claim 1 as indicated below.

1. **(Currently Amended)** A method for detecting an analyte in a sample comprising:
 - (a) contacting a sample with a fluorophore-labeled aptamer bound to a solid support ~~with the sample~~;
 - (b) directly illuminating the aptamer with polarized light whereby the direct illumination of the fluorophore directly excites the fluorophore;
 - (c) measuring the fluorescence anisotropy of the fluorophore; and
 - (d) identifying the presence or amount of the analyte when said fluorescence anisotropy measurement is greater than an anisotropy measurement obtained in the absence of the analyte.
2. **(Previously Presented)** The method of claim 1 wherein the solid support is a bead.
3. **(Previously Presented)** The method of claim 2 wherein the bead is a silica bead.
4. **(Previously Presented)** The method of claim 2 wherein the bead has a diameter between about 1 μm and about 10 μm .
5. **(Previously Presented)** The method of claim 4 wherein the bead has a diameter of about 5 μm .
6. **(Previously Presented)** The method of claim 2 wherein the bead is suspended in solution.
7. **(Previously Presented)** The method of claim 2 wherein the bead is arranged in a two-dimensional array.
8. **(Previously Presented)** The method of claim 1 wherein the aptamer comprises between about 10 and about 100 nucleotides.
9. **(Previously Presented)** The method of claim 1 wherein the aptamer is labeled with a fluorophore selected from the group consisting of fluorescein derivatives, eosin derivatives, coumarin derivatives, and rhodamine derivatives.
10. **(Previously Presented)** The method of claim 9 wherein the aptamer is labeled with carboxyfluorescein (FAM).

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11. **(Previously Presented)** The method of claim 1 wherein the aptamer is part of an array of aptamers.
12. **(Previously Presented)** The method of claim 11 wherein the array comprises two or more addressable locations.
13. **(Previously Presented)** The method of claim 12 wherein each addressable location comprises a single type of aptamer.
14. **(Previously Presented)** The method of claim 12 wherein each addressable location comprises multiple types of aptamers.
15. **(Previously Presented)** The method of claim 14 wherein each type of aptamer is labeled with a fluorophore with unique spectral characteristics.
16. **(Previously Presented)** The method of claim 1 wherein the polarized light is laser light.
17. **(Previously Presented)** The method of claim 1 wherein the analyte is associated with a disease or disorder.
18. **(Previously Presented)** The method of claim 1 wherein the sample is obtained from a patient suspected of suffering from a disease or disorder.
19. **(Previously Presented)** The method of claim 1 wherein the analyte is a protein.
20. **(Previously Presented)** The method of claim 1 wherein the analyte is a metabolite.
21. **(Previously Presented)** The method of claim 1 wherein the sample is from a human patient and the analyte is associated with a disease or disorder.